

Supplemental Tables

Supplemental Table 1: Histomorphometric Analysis of Tibia Sections from 8-Weeks Old VEGF fl/fl and Osx-Cre Mice.

Parameters	VEGF fl/fl mice (n=5)	Osx-Cre mice (n=2)	p value
BV/TV (%)	7.48±0.39	7.12±1.42	0.729
Tb.Th (μm)	32.22±2.54	28.97±3.34	0.511
Tb.N (/mm)	2.37±0.20	2.43±0.21	0.870
Tb.Sp (μm)	402±36	385±39	0.798
MS/BS (%)	31.53±1.56	37.14±0.66	0.085
MAR (μm/day)	2.08±0.15	1.59±0.12	0.114
BFR/BS (μm ³ /μm ² /year)	241±25	216±20	0.599
BFR/BV (%/year)	1491±103	1527±313	0.888
BFR/TV (%/year)	111±6	104±0.7	0.573
Ob.S/BS (%)	15.09±2.15	14.96±6.60	0.980
N.Ob/T.Ar (/mm ²)	58.72±8.00	54.63±24.38	0.835
N.Ob/B.Pm (/mm)	12.58±1.74	10.42±4.47	0.590
OV/TV (%)	0.143±0.033	0.169±0.085	0.732
OS/BS (%)	7.01±1.75	5.87±3.06	0.745
O.Th (μm)	4.74±0.19	5.62±0.23	0.048
Oc.S/BS (%)	8.38±2.46	5.01±1.40	0.458
N.Oc/T.Ar (/mm ²)	16.25±3.33	11.41±3.42	0.447
N.Oc/B.Pm (/mm)	3.59±0.94	2.29±0.60	0.454
ES/BS (%)	1.52±0.39	1.50±0.77	0.980

Comparing two controls, VEGF fl/fl (n=5) and Osx-cre; VEGF +/+ (n=2), we did not observe any changes in dynamic and static histomorphometric parameters except osteoid thickness. Osx-cre; VEGF +/+ mice had thicker osteoid than VEGF fl/fl controls. Since the sample size is low in the Osx-cre; VEGF +/+ group (n=2), we cannot conclude that this is a skeletal phenotype of these mice at 8 weeks.

Supplemental Table 2: Histomorphometric Analysis of Tibia Sections from 8-Weeks Old VEGF fl/fl and VEGF fl/fl; Osx-Cre Mice.

Parameters	VEGF fl/fl (n=5)	VEGF fl/fl; Osx-Cre (n=6)	p value
BV/TV (%)	7.48±0.39	5.06±0.70*	0.019
Tb.Th (μm)	32.22±2.54	28.00±1.55	0.173
Tb.N (/mm)	2.37±0.20	1.77±0.17*	0.046
Tb.Sp (μm)	402±36	574±77	0.091
MS/BS (%)	31.53±1.56	29.99±2.37	0.618
MAR (μm/day)	2.08±0.15	2.07±0.09	0.962
BFR/BS (μm ³ /μm ² /year)	241±25	223±8	0.488
BFR/BV (%/year)	1491±103	1608±82	0.395
BFR/TB (%/year)	111±6	79±9*	0.022
Ob.S/BS (%)	15.09±2.15	13.52±1.85	0.592
N.Ob/T.Ar (/mm ²)	58.72±8.00	32.17±6.74*	0.031
N.Ob/B.Pm (/mm)	12.58±1.74	11.39±1.59	0.626
OV/TV (%)	0.143±0.033	0.068±0.034	0.146
OS/BS (%)	7.01±1.75	5.04±2.01	0.488
O.Th (μm)	4.74±0.19	4.33±0.78	0.653
Oc.S/BS (%)	8.38±2.46	8.62±1.14	0.927
N.Oc/T.Ar (/mm ²)	16.25±3.33	11.77±1.93	0.255
N.Oc/B.Pm (/mm)	3.59±0.94	3.93±0.41	0.733
ES/BS (%)	1.52±0.39	2.27±0.37	0.199
N.Ad/T.Ar (/mm ²)	6.89±0.66	87.74±12.88***	0.0003

*p<0.05 compared to VEGF fl/fl, unpaired t test

***p<0.001 compared to VEGF fl/fl

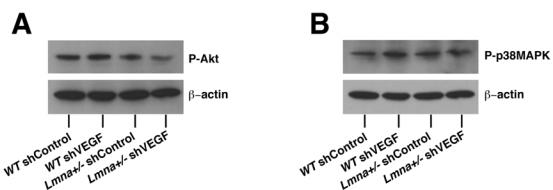


Figure S1. Activation of downstream targets of VEGFR2 in cells expressing reduced cell-associated levels of VEGF. Phosphorylated Akt (A) and p38MAPK (B) is detected in *WT* and *Lmna^{+/}-* cultures expressing VEGF-specific shRNA.